

1 HP Insight Management WBEM PCI Device Provider Overview

Description The HP Insight Management Web-Based Enterprise Management (WBEM) PCI Device provider implements the profiles listed to support PCI devices installed on HP servers. The following table details the profiles implemented and files installed by this provider.

Implemented Profiles

- DMTF: PCI Device Profile (DSP1075) 1.0.0a 09/2007
- DMTF: Physical Asset Profile
- HP: Location Profile 1.0

1-1 Uses Cases

Refer to DMTF PCI Device Profile for Use Cases located at: <http://www.dmtf.org/standards/profiles>.

1-2 Class Implementations

The following classes and properties are implemented as specified in the following tables for HP Server platforms where available. The classes below describe PCI Device.

1-2-1 SMX_PCIDevice

Property Name	Property Implementation
CIM_ManagedElement	
Caption	A user-friendly description for this PCI device provided by the operating system.
Description	A user-friendly description for this PCI device provided by the operating system.
ElementName	A hardware ID for this PCI device provided by the operating system.
CIM_ManagedSystemElement	
Name	A hardware ID for this PCI device provided by the operating system.
CIM_LogicalDevice	
CreationClassName	"SMX_PCIDevice"

Property Name	Property Implementation
DeviceID	Unique identifier for this PCI device instance.
SystemCreationClassName	SMX_ComputerSystem.CreationClassName
SystemName	SMX_ComputerSystem.Name
CIM_EnabledLogicalElement	
EnabledDefault	2 (Enabled)
EnabledState	5 (Not Applicable)
RequestedState	12 (Not Applicable)
CIM_PCIController	
CIM_PCIDevice	
Capabilities	Contains the capabilities of the PCI device. 13 (PCI Express device) 5 (PCI-X capable device)
CapabilityDescriptions	Descriptions of capabilities.
ClassCode	Register of 8 bits that identify the basic function of the PCI device. This property is only the upper byte (offset 0Bh) of the 3-byte ClassCode field. Note the ValueMap array of the property specifies the decimal representation of this information.
DomainNumber	The domain/segment number where this PCI device resides.
BusNumber	The bus number where this PCI device resides.
DeviceNumber	The device number assigned to this PCI device for the bus.
FunctionNumber	The function number for this PCI device.
PCIDeviceID	PCI device ID as described in the configuration registers for this PCI device.
Revision	Revision ID as described in the configuration registers for this PCI device.
SubClassCode	Register of 8 bits that identifies with further granularity the subclass of the PCI device. This property is only the middle byte (bit offset 08h) of the 24-bit ClassCode register. Note the meaning of this property is interpreted based on the value of the ClassCode byte.
SubsystemID	Subsystem ID as described in the configuration registers for this PCI device.
SubsystemVendorID	Subsystem Vendor ID as described in the configuration registers for this PCI device.

Property Name	Property Implementation
VendorID	Vendor ID as described in the configuration registers for this PCI device.
HP_PCIDevice	
SMX_PCIDevice	
SubClassCode	The basic sub-function of the PCI device. The value of the property is interpreted based on the value of the ClassCode byte.

1-2-2 SMX_PCICard

Property Name	Property Implementation
CIM_ManagedElement	
Caption	"PCI Card <cardNum>"
CIM_ManagedSystemElement	
Name	"PCI Card <cardNum>"
CIM_PhysicalElement	
CreationClassName	"SMX_PCICard"
Tag	"PCI Card <cardNum>"
Description	"PCI Card <cardNum>"
ElementName	"PCI Card <cardNum>"
CIM_PhysicalPackage	
RemovalConditions	2 (Not Applicable)
PackageType	9 (Module/Card)
VendorCompatibilityStrings	"HPQ:PCICard"
CIM_Card	
HostingBoard	False
HP_PCICard	

1-2-3 SMX_PCISlot

Property Name	Property Implementation
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Property Name	Property Implementation
CIM_ManagedElement	
Caption	Same as Name.
CIM_ManagedSystemElement	
Name	"PCI" <physical location> Refer to "Physical Location" for more information.
CIM_PhysicalElement	
CreationClassName	"SMX_PCISlot"
Tag	Opaque Key. HPQ:SMX_PCISlot:<unique_keys>
Description	Same as Name.
ElementName	Same as Name.
PoweredOn	True – if slot is powered on False – if slot is not powered
CIM_PhysicalConnector	
ConnectorLayout	7 (Slot)
ConnectorPinout	"PCI" – if 33 MHz PCI slot "PCI-66" – if 66 MHz PCI slot "PCI-X" – if PCI-X slot "PCI Express" – if PCI Express slot "PCI Express Mezzanine" – if in-blade Mezzanine slot
ConnectorType	43 (PCI) – if this is a 33 MHz PCI slot 80 (PCI-66MHZ) – if this is a 66 MHz PCI slot 98 (PCI-X) – if this is a PCI-X slot 1 (Other) – if this is a PCI Express slot
ConnectorDescription	Only initialized if ConnectorType == 1 (Other): "PCI Express" – if this is a PCI Express slot or "PCI Express Mezzanine" if mezzanine slot in a blade, otherwise this property is not set
OtherTypeDescription	Deprecated in favor of ConnectorDescription

Property Name	Property Implementation
CIM_Slot	
Number	The physical PCI slot number
SupportsHotPlug	True – if slot supports PCI hot plug operations False – if slot does not support PCI hot plug operations
VendorCompatibilityStrings	“HPQ:PCISlot”
HP_PCISlot	

1-2-4 SMX_PCICardInSlot

Property Name	Property Implementation
Antecedent	References SMX_PCISlot
Dependent	References SMX_PCICard

1-2-5 SMX_RealizesPCIDevice

Property Name	Property Implementation
Antecedent	References SMX_PCICard
Dependent	References SMX_PCIDevice

1-2-6 SMX_SystemPCISlot

Property Name	Property Implementation
GroupComponent	References SMX_ComputerSystemChassis
PartComponent	References SMX_PCISlot

1-2-7 SMX_SystemPCIDevice

Property Name	Property Implementation
GroupComponent	References SMX_ComputerSystem
PartComponent	References SMX_PCIDevice

1-2-8 SMX_PCISlotLocation

Property Name	Property Implementation
CIM_ManagedElement	
Caption	Same as ElementLocationTag.
Description	Same as ElementLocationTag.
ElementName	Same as ElementLocationTag.
CIM_Location	
Name	Unique identifier of the form: HPQ:SMX_PCISlotLocation: <unique_keys>
PhysicalPosition	Opaque key. Example for slot 6 in cabinet 1, bay 2 chassis 3 : "01-02-03-FF-FF-06-FF-85" For Slot 2 in a non-cellular in this system: "FF-FF-FF-FF-FF-02-FF-85"
HP_Location	
ElementLocationTagDesc	0 (Hood Tag)
ElementLocationTag	"PCI Slot Location" <physical location>. Refer to "Physical Location" for more information.

LocationInfoDesc	<p>Array of numerical enumerators describing values at comparable index in the LocationInformation array index 1,2, 3, or 4.</p> <p>LocationInfoDesc[0] per LocationInformation[0] 3 (PCI Slot).</p> <p>Additional enumerators for Cellular servers</p> <p>7 (Cabinet)</p> <p>6 (Chassis)</p> <p>Additional enumerators for HP BladeSystem servers</p> <p>14 (Blade)</p> <p>1 (Mezzanine)</p>
LocationInformation	<p>Array of text values representing the location components that describe this PCI Slot location. LocationInfoDesc[0] per LocationInformation[0].</p> <p>Cross-reference with LocationInfoDescription array to determine what type of location information is represented</p>

1-2-9 SMX_PCISlotElementLocation

Property Name	Property Implementation
Element	References SMX_PCISlot
PhysicalLocation	References SMX_PCISlotLocation

1-3 Physical Location

The Physical Location is a string representing the physical location of any PCI device. This string should represent the physical location of the device from which an end-user can uniquely locate the device. Most of these strings will be visible in customer documentation, silkscreen labels, or hood tags.

The following table lists the properties implemented. Any combination of the following applicable descriptors could be used to better define the device location.

All Systems	HP Integrity Cellular Servers	HP BladeServers in C3000 / C7000 Enclosures
Slot=<num>	Cabinet=<num>	Blade=<num>
Embedded Controller=<logical_controller_id>	Bay=<num>	RootPort=<num> (if embedded on System Board)
Mezzanine=<num>	Chassis=<num>	Mezzanine=<num> (I/O Mezzanine slot num)

1-4 Provider Indications

Indications Generated by the Provider

This provider generates no indications.